DOCTOR OF PHILOSOPHY

The provision of general medical services by non-medical health professionals and allied health professionals: systematic reviews, survey and mixed-methods study.

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Award date:
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Awarding institution:
Bangor University

Thesis Appendices – Supplement 1

Appendix 1: Search strategy on Medline

Search History

(35)

# ▲	Searches	Results
1	(task* adj5 shift*).ti,ab,kw.	2218
2	(task* adj5 substitut*).ti,ab,kw.	344
3	(role* adj5 shift*).ti,ab,kw.	1528
4	(role* adj5 substitut*).ti,ab,kw.	1106
5	skill mix*.ti,ab,kw.	820
6	exp Delegation, Professional/	537
7	professional delegation.ti,ab,kw.	5
8	nurse-doctor substitut*.ti,ab,kw.	2
9	nurse-physician substitut*.ti,ab,kw.	1

☐	10	((position* or responsibility or part or professional or role* or job* or task* or duty or duties or procedure) adj3 (delegation or allocation or designation or assignment or hand over or handing over or pass on or passing on or give out or giving out or take over or take on or stand in or standby or replace or fill in)).ti,ab,kw.	3563
☐	11	mini doctor*.ti,ab,kw.	12
☐	12	exp Physician Assistants/	5147
☐	13	physician associate*.ti,ab,kw.	100
☐	14	nurse prescribing.ti,ab,kw.	454
☐	15	pharmacist prescribing.ti,ab,kw.	114
☐	16	advanced role*.ti,ab,kw.	83
☐	17	expanded role*.ti,ab,kw.	1174
☐	18	expanded dut*.ti,ab,kw.	148
☐	19	Medical-nursing interface.ti,ab,kw.	1
☐	20	(Nurs* adj5 medical role*).ti,ab,kw.	19
☐	21	nurse-manag*.ti,ab,kw.	3491
☐	22	nurse-led.ti,ab,kw.	2755

☐	23	pharmacist-led.ti,ab,kw.	419
☐	24	pharmacist-manag*.ti,ab,kw.	358
☐	25	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24	23850
☐	26	exp Primary Health Care/	132154
☐	27	primary health care.ti,ab,kw.	22316
☐	28	primary care.ti,ab,kw.	92796
☐	29	exp Family Practice/	64219
☐	30	exp General Practice/	71544
☐	31	general practice.ti,ab,kw.	34181
☐	32	general medical services.ti,ab,kw.	400
☐	33	family clinic*.ti,ab,kw.	399
☐	34	26 or 27 or 28 or 29 or 30 or 31 or 32 or 33	264838
☐	35	25 and 34	2937

Appendix 2: PRISMA checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	45
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	NA
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	45
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	45,46
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	NA
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	46
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	46
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix 7
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	46, 47
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	47

Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	4
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	47,48
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	46,47
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	47

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	NA
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	NA
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	49
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	50,51
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	NA
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	52-57
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	NA
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	NA
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	NA
DISCUSSION			

Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	58
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	58-60
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	60-61
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	2,6

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journa

Appendix 3: Economic evaluation appraisal tool responses (Drummond et al, 2005)

The Community Pharmacy Medicines Management Project Evaluation Team (2007)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to test the hypothesis that the MEDMAN service would be cost effective.
Was a comprehensive description of the competing alternatives given?	The MEDMAN intervention was well explained, however minimal information was given for usual care. Does not explain specifics with regards to care received from GPs and community pharmacists.
Was the effectiveness of the programmes or services established?	The study set out to measure effectiveness alongside and economic evaluation. The results found no significant effect for the intervention i.e. no statistically significant differences between groups in any of the outcomes chosen.
Were all the important and relevant costs and consequences for each alternative identified?	Authors did not state their perspective, therefore difficult to determine if all relevant costs and consequences were included. Cost were assessed from an NHS perspective.
Were costs and consequences measured accurately in appropriate physical units?	The costs and consequences were measured accurately in appropriate physical units for the research question, however the authors stated they used patient records for NHS resource use, but do not describe how this resource use was costed.
Were costs and consequences valued credibly?	Yes, costs and consequences were clear and appropriately identified for the research question
Were costs and consequences adjusted for differential timing?	Follow-up period was 12 months, therefore discounting was not required.
Was an incremental analysis of costs and consequences of alternatives performed?	Authors reported no significant differences in outcomes between groups and therefore a cost-minimisation analysis was conducted, however given the lack of significant effect for the intervention a cost-consequence analysis may have been more appropriate.
Was allowance made for uncertainty in the establishments of costs and consequences?	Authors did not state any sensitivity analysis they only report undertaking secondary outcomes analysis – 5 year risk of CV death, patient perspectives and patient compliance.
Did the presentation and discussion of study results include all issues of concern to users?	Limitations noted by authors included the choice of condition and risk of bias. Additional limitations include a lack of sensitivity analysis and choice of economic evaluation given the non-significant findings for the effectiveness of the intervention.

Dierick-van Daele et al., (2010)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to estimate the costs of GPs versus nurse practitioners
Was a comprehensive description of the competing alternatives given?	Yes, details of the external reference group were provided.
Was the effectiveness of the programmes or services established?	Yes, this was established from a RCT (Derick van-Daele et al., 2009).
Were all the important and relevant costs and consequences for each alternative identified?	The economic evaluation was conducted from a societal perspective. Yes, they identified direct costs and identified indirect costs i.e. productivity losses measured in terms of sick leave days.
Were costs and consequences measured accurately in appropriate physical units?	The costs and consequences were measured in accurately in appropriate physical units for the research question, the authors used National information to derive unit costs.
Were costs and consequences valued credibly?	Yes, costs and consequences were clear and appropriately identified for the research question.
Were costs and consequences adjusted for differential timing?	No follow-up period stated for economic analysis, follow-up appointment in the RCT occurred at 2 weeks, therefore discounting was not required.
Was an incremental analysis of costs and consequences of alternatives performed?	No, an incremental analysis of costs and consequences was not appropriate as a cost-minimisation analysis was conducted.
Was allowance made for uncertainty in the establishments of costs and consequences?	Yes, a sensitivity analysis was conducted varying GP salary.
Did the presentation and discussion of study results include all issues of concern to users?	The authors stated that due to pragmatic reasons, it was not possible to gather data for follow-up appointments, length of appointments, or number of days absent in the external reference practices. The authors noted that the study was not powered to assess the impact of adverse events or assess additional consultations.

Lee et al., (2004)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to perform a cost-minimisation analysis of community health practitioner services in primary care.
Was a comprehensive description of the competing alternatives given?	Yes, the study compares costs between community health practitioners and physicians.
Was the effectiveness of the programmes or services established?	Yes, previous studies have demonstrated that the care provided by CHP is comparable to physicians (Kim et al., 1985, 1991; Song et al., 1988; Kim, 1992,1999).
Were all the important and relevant costs and consequences for each alternative identified?	Yes, they identified direct costs and indirect costs including travel and loss of earnings for patients who would have had to travel to inner city clinics if the CHP model of care was unavailable.
Were costs and consequences measured accurately in appropriate physical units?	The costs and consequences were measured in accurately in appropriate physical units for the research question, the authors used National information to derive unit costs.
Were costs and consequences valued credibly?	Yes, costs and consequences were justified and measured appropriately.
Were costs and consequences adjusted for differential timing?	Economic analysis was conducted using a 6 month time horizon; therefore, discounting rate was required.
Was an incremental analysis of costs and consequences of alternatives performed?	An incremental analysis of costs and consequences was not appropriate, as a cost-minimisation analysis was conducted, this was justified as previous research showed that CHP provide comparable care to physicians.
Was allowance made for uncertainty in the establishments of costs and consequences?	No sensitivity analysis was conducted.
Did the presentation and discussion of study results include all issues of concern to users?	The authors compared their results to other previous cost-effectiveness analyses of nurse practitioners and make suggestions for future research. The authors also note limitations including sample size, self-reported measured to gather CHP activity for costing and did not test underlying assumptions of data.

Neilson et al., (2015)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to measure the differences in mean costs and effects of a pharmacy-led service for the management of chronic pain in primary care compared to GP usual care.
Was a comprehensive description of the competing alternatives given?	Yes, details of the two interventions were provided however usual care was not explained.
Was the effectiveness of the programmes or services established?	Yes, this was established in the PIPPC pilot RCT (Bruhn et al., 2013). The results found a positive benefit for pharmacists prescribing, however authors noted that a larger trial was needed.
Were all the important and relevant costs and consequences for each alternative identified?	The economic analysis was undertaken from a NHS perspective. Other costs borne by patients, carers and productivity losses were deemed outside the remit of the NHS perspective, though given the condition would argue these would have been relevant.
Were costs and consequences measured accurately in appropriate physical units?	Yes, costs and consequences were measured accurately in appropriate physical units for the research question and were sourced from the British National Formulary, Scottish Health Service Cost book and the Personal Social Services Unit.
Were costs and consequences valued credibly?	Yes, costs and consequences were clearly identified, and appropriate for the research question.
Were costs and consequences adjusted for differential timing?	Economic analysis was conducted using a 6 month time horizon; therefore, discounting rate was not required.
Was an incremental analysis of costs and consequences of alternatives performed?	Yes, incremental analysis of costs and QALYs was performed.
Was allowance made for uncertainty in the establishments of costs and consequences?	Yes, three sensitivity analyses were conducted. Authors conducted sensitivity analyses; with imputed values for SF-36 scores, excluding hospital inpatient costs deemed unassociated with chronic pain, and controlling for baseline differences e.g. sociodemographic and economic factors.
Did the presentation and discussion of study results include all issues of concern to users?	Limitations noted by authors included high uncertainty of results, which should be viewed with caution due to small samples size. The authors discussed using alternative methods to elicit QALYs. The authors concluded a future larger trial is needed.

Richardson et al., (2013)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to assess the cost-effectiveness of nurse-led pragmatic rehabilitation and supportive listening for patients with chronic fatigue syndrome/myalgic encephalitis in primary care.
Was a comprehensive description of the competing alternatives given?	Details of the two nurse-led interventions were provided however no information provided for usual care.
Was the effectiveness of the programmes or services established?	Clinical effectiveness was based on a three armed RCT (Wearden et al., 2010). Cost-effectiveness uses QALYs as their measurement of effect.
Were all the important and relevant costs and consequences for each alternative identified?	The economic analysis was conducted from a NHS and personal social services perspective. The authors assessed costs to the NHS at 2008/09 prices. The study assessed HRQol (measured by QALYs), resource use and unit costs. The authors also considered private expenditures, informal care costs and loss of production costs. Social care costs such as family support workers were not included.
Were costs and consequences measured accurately in appropriate physical units?	The costs and consequences were measured accurately in appropriate physical units for the research question, the authors used NHS prices to calculate costs.
Were costs and consequences valued credibly?	Yes, costs and consequences were clear and appropriately identified for the research question
Were costs and consequences adjusted for differential timing?	Yes, costs and outcomes were discounted at a rate of 3.5% per year, however the paper was unclear whether all follow-up costs and outcomes were discounted or only the costs and outcomes that fell outside of the 1 year time horizon.
Was an incremental analysis of costs and consequences of alternatives performed?	Yes, however results found treatment as usual had lower costs and better outcomes than both interventions.
Was allowance made for uncertainty in the establishments of costs and consequences?	Yes, authors conducted a complete case analysis as part of sensitivity analyses.
Did the presentation and discussion of study results include all issues of concern to users?	Authors concluded that the benefit of the intervention was very small, if not non-existent. Authors also noted using multiple imputation could have resulted in over or under estimation of EQ-5D scores and service use costs. Authors compared their results to existing literature and make suggestions for future research.

Turner et al., (2008)

Checklist question	Response
Was a well-defined question posed in an answerable form?	Yes, to assess health service resource use of a nurse-led disease management for secondary prevention in patients with chronic heart disease and heart failure in primary care compared with usual care.
Was a comprehensive description of the competing alternatives given?	Both the intervention group and control group are described.
Was the effectiveness of the programmes or services established?	Yes, this was established from a RCT (Khunti et al., 2007).
Were all the important and relevant costs and consequences for each alternative identified?	The study adopted a patient perspective for outcomes. Costs were measured from the perspective of both the NHS and patients (including travel costs).
Were costs and consequences measured accurately in appropriate physical units?	The costs and consequences were justified and appropriate for the research question.
Were costs and consequences valued credibly?	Yes, costs and consequences were clearly identified, and appropriate for the research question.
Were costs and consequences adjusted for differential timing?	Follow-up period was 12 months therefore discounting was not needed. However, the authors applied a discount rate of 6% for equipment and training that would have an expected lifespan of more than one year.
Was an incremental analysis of costs and consequences of alternatives performed?	Yes, the additional costs in the nurse-led clinic service compared with the control group were calculated, as well as the additional benefits of the service.
Was allowance made for uncertainty in the establishments of costs and consequences?	Authors used bootstrapping to obtain bootstrapped p values for use in the analysis. Sensitivity analysis was not reported.
Did the presentation and discussion of study results include all issues of concern to users?	Limitations noted by the authors included low participation rates and that all practices were taken from one locality. Additionally, authors noted length of follow up of 12 months as a study limitation.

Appendix 4: Search strategy in Medline database

# ▲	Searches	Results
1	(task* adj5 shift*).ti,ab,kw.	2218
2	(task* adj5 substitut*).ti,ab,kw.	344
3	(role* adj5 shift*).ti,ab,kw.	1528
4	(role* adj5 substitut*).ti,ab,kw.	1106
5	skill mix*.ti,ab,kw.	820
6	exp Delegation, Professional/	537
7	professional delegation.ti,ab,kw.	5
8	nurse-doctor substitut*.ti,ab,kw.	2
9	nurse-physician substitut*.ti,ab,kw.	1
10	((position* or responsibility or part or professional or role* or job* or task* or duty or duties or procedure) adj3 (delegation or allocation or designation or assignment or hand over or handing over or pass on or passing on or give out or giving out or take over or take on or stand in or standby or replace or fill in)).ti,ab,kw.	3563
11	mini doctor*.ti,ab,kw.	12

☐	12	exp Physician Assistants/	5147
☐	13	physician associate*.ti,ab,kw.	100
☐	14	nurse prescribing.ti,ab,kw.	454
☐	15	pharmacist prescribing.ti,ab,kw.	114
☐	16	advanced role*.ti,ab,kw.	83
☐	17	expanded role*.ti,ab,kw.	1174
☐	18	expanded dut*.ti,ab,kw.	148
☐	19	Medical-nursing interface.ti,ab,kw.	1
☐	20	(Nurs* adj5 medical role*).ti,ab,kw.	19
☐	21	nurse-manag*.ti,ab,kw.	3491
☐	22	nurse-led.ti,ab,kw.	2755
☐	23	pharmacist-led.ti,ab,kw.	419
☐	24	pharmacist-manag*.ti,ab,kw.	358
☐	25	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24	23850

☐	26	exp Primary Health Care/	132154
☐	27	primary health care.ti,ab,kw.	22316
☐	28	primary care.ti,ab,kw.	92796
☐	29	exp Family Practice/	64219
☐	30	exp General Practice/	71544
☐	31	general practice.ti,ab,kw.	34181
☐	32	general medical services.ti,ab,kw.	400
☐	33	family clinic*.ti,ab,kw.	399
☐	34	26 or 27 or 28 or 29 or 30 or 31 or 32 or 33	264838
☐	35	25 and 34	2937

Appendix 5: PRISMA checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	62
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	NA
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	62
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	63
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	63
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	63
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	63
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix 10
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	63
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	65

Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	63
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	63-65
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	NA
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	65-66

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	NA
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	NA
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	69
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	70-73
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	67-68
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	NA
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	NA
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	NA
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	NA
DISCUSSION			

Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	86,87
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	87,88
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	88,89
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	2,6

- *From:* Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journa

Appendix 6: Critical Appraisal Skills Programme (CASP) qualitative checklist responses (Public Health Resource Unit, 2006)

Drennan et al. 2011

CASP item	Answer
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors explain the importance of the research.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate – this was discussed in paper.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; the authors provided reasons for their choice of research design in the paper.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was acceptable for the aims of the study.
Was the data collected in a way that addressed the research issue?	The authors provided clear information with regards to how the data was collected (telephone interviews with detailed notes taken). Information about the interview guide was provided; however, they didn't state how the guide was developed. Saturation of data was not discussed.
Has the relationship between researcher and participants been adequately considered?	Information about the interviewer was not provided in the paper. The relationship between the researcher and participants was not discussed in the paper.
Have ethical issues been taken into consideration?	Ethical approval was sought. Detail regarding consent and ethical considerations are given in the paper.
Was the data analysis sufficiently rigorous?	Information regarding the method of analysis is given. All researchers analysed the data independently and agreed themes were discussed. The paper presents sufficient data to present the findings. However, the researchers did not critically examine their own role.
Is there a clear statement of findings?	Yes, there is a clear statement of findings in relation to the study aim. The authors did discuss the credibility of their findings by highlighting the study limitations.
How valuable is the research?	Yes, the authors make reference to earlier pilot studies and recommend new areas for research.

Drennan et al. 2017

CASP item	Answer
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors explain the importance of the research.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate – detail is given in paper.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; the authors provided details for their choice of research design in the paper.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was acceptable for the aims of the study. The authors provide information in the paper on the sample of participants.
Was the data collected in a way that addressed the research issue?	The authors provided clear information with regards to how the data was collected in order to encompass information at macro, meso and micro levels of the healthcare system. The authors stated that theoretical framing and documentary analysis informed the topic guides. Saturation of data was not discussed in the paper.
Has the relationship between researcher and participants been adequately considered?	Information about the interviewer was not provided in the paper. The relationship between the researcher and participants was not discussed in the paper. However, the authors stated that reflective techniques were used in the interview so that the researcher checked and had validated their understanding of the interviewees' viewpoint.
Have ethical issues been taken into consideration?	Ethical approval was sought. Detail regarding consent and ethical considerations are given in the paper.
Was the data analysis sufficiently rigorous?	Information regarding the method of analysis is given. The paper presents sufficient data to present the findings. However, the researchers did not critically examine their own role.
Is there a clear statement of findings?	Yes, there is a clear statement of findings in relation to the study aim. The authors did discuss the credibility of their findings by highlighting the study limitations.

How valuable is the research?	Yes, the authors discussed the contribution the study makes to existing knowledge and understanding and makes comparisons with previous literature.

Dufour et al. 2014

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors explain the importance of the research.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate – detail is given in paper.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; the authors provided details for their choice of research design in the paper.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was acceptable for the aims of the study. The authors provide detail with regards to the sampling of participants.
Was the data collected in a way that addressed the research issue?	The authors provided clear information with regards to the methodology and how the data was collected. Information about the interview guide was provided and saturation of data was discussed.
Has the relationship between researcher and participants been adequately considered?	The authors discuss the researcher's ability to understand and relate to participants perceptions and experiences.
Have ethical issues been taken into consideration?	Ethical approval was sought. However, no information regarding consent and ethical considerations are given in the paper.
Was the data analysis sufficiently rigorous?	Yes, in-depth information regarding the method of analysis is given. All researchers analysed the data independently and agreed themes were discussed. The paper presents sufficient data to present the findings. Furthermore, they critically examined their own role.
Is there a clear statement of findings?	Yes, there is a clear statement of findings in relation to the study aim. The authors did discuss the credibility of their findings by highlighting the study limitations.
How valuable is the research?	Yes, the authors discuss their findings in relation to policy and suggest new areas of research.

Gidman et al., 2012

CASP item	Answer
Was there a clear statement of the aims of the research?	Yes, to explore public trust of care provided by extended scope community pharmacists compared with care provided by GPs, through sociological theories. Authors stated that it was the first study to apply sociological perspectives of trust to understand public views of extended scope pharmacists.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate.
Was the research design appropriate to address the aims of the research?	Yes, authors provide detailed explanation regarding the justification of the chosen methodology.
Was the recruitment strategy appropriate to the aims of the research?	Yes, participants were recruited using purposive sampling from non-pharmacy or national health-related organisations. The majority of study participants were British (4 groups) and 1 group included participants from different regions of Africa, in order to explore the views of immigrant populations.
Was the data collected in a way that addressed the research issue?	Yes, the data was collected from focus groups. The authors stated that focus groups were the chosen method of data collection – focus groups are reported to provide the richest data with regard to public views of priorities in health services.
Has the relationship between researcher and participants been adequately considered?	Authors stated that the focus groups were conducted in a location that was convenient and familiar to the participants. The authors did not provide insight into their own role and potential influence on the findings.
Have ethical issues been taken into consideration?	Participants were given information sheets and provided written informed consent.
Was the data analysis sufficiently rigorous?	Explanation of the data analysis is provided. Two researchers separately coded the transcripts and the emergent themes were discussed. A third researcher independently verified the themes and data analysis.
Is there a clear statement of findings?	The authors provided a clear statement of the findings with regard to the study objectives. The authors discuss contradictory findings – the study suggests that public trust in GPs is higher compared to pharmacists, whereas repeated international surveys report the opposite.
How valuable is the research?	The authors highlight that only few qualitative studies have explored the public

	views of extended services in pharmacies - was the first study to apply sociological perspectives of trust to understand public views of extended scope pharmacists.

Halter et al., 2017

CASP item	Answer
Was there a clear statement of the aims of the research?	Yes, the objective was clear and the authors have stated that the study addresses an evidence gap
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate as the aim of the research was to explore patient experiences of consultations.
Was the research design appropriate to address the aims of the research?	The authors state that the topic guide was developed in order to explore issues not captured by the survey.
Was the recruitment strategy appropriate to the aims of the research?	Participants were recruited from the satisfaction survey and were contacted if they expressed interest in taking part in the interviews. Participants were self-selected and reasons for exclusion of participants were given.
Was the data collected in a way that addressed the research issue?	Authors stated that they conducted semi-structured telephone interviews to overcome logistical problems but do recognise that this may have produced lower quality evidence. The interview topic guide was developed to explore issues not capture by the survey. The methods were not modified during the study. Authors do not discuss saturation on data, data collection concluded after all participants were interviewed.
Has the relationship between researcher and participants been adequately considered?	No, from reading the paper, the relationship between the researcher and participants was not considered.
Have ethical issues been taken into consideration?	Approval was sought by a UK NHS Research ethics committee. The authors do not state how the research was explained to the participants. Authors did not raise ethical issues in the paper.
Was the data analysis sufficiently rigorous?	The authors did not explain the process of thematic analysis, the paper present four interlinking themes but the authors do not comment on how these themes emerged. The paper provides sufficient data to

	support the findings and a number of interview quotes are provided to support each theme. Paper does not discuss contradictory data or the researchers own role, or potential bias.
Is there a clear statement of findings?	Yes, there is a clear statement of findings. There is adequate discussion of the evidence both for and against the physician associate consultations in primary. The findings are discussed in relation to the research aim.
How valuable is the research?	Yes, the authors state that the research provides greater depth of knowledge in this area and go on discuss how physician associated could become a preferred alternative to the GP. Authors have not provided future recommendations for research.

Hatah et al., 2013

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, the research aim was clear. The authors state that more evidence is needed in this area in response to the new framework for pharmacy services in 2007.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate as the aim of the research was to explore GP views of medication reviews by pharmacists and pharmacist prescribing
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate for the research aims – interviews were conducted to assess GP views. The authors state that the interview questions were developed through a literature review and from discussion among authors. The authors are not specific about why they chose face-to-face individual interviews as opposed to focus groups.
Was the recruitment strategy appropriate to the aims of the research?	The researchers provide detailed information on participant recruitment and how they obtained their sample.
Was the data collected in a way that addressed the research issue?	Yes, the setting was clear and justified. The interview topic guide was developed based on a literature review and through discussion between authors. The researcher has explicitly discussed the methods and saturation of data is discussed in paper.
Has the relationship between researcher and participants been adequately considered?	Yes, the participants were informed that the interviewer had a pharmacy background.

	The authors also discuss how the role of the interviewer may have impacted the results – authors highlight that participants may have provided a socially desirable response despite the interviewer's request to disregard her background in pharmacy.
Have ethical issues been taken into consideration?	Yes, ethics approval was obtained from the Human and Ethics Committee. Ethical considerations were discussed - the participants were told that they could withdraw from the study at any time without any disadvantage to themselves or their practice. The interviews were transcribed verbatim and sensitive information was removed to ensure confidentiality.
Was the data analysis sufficiently rigorous?	The data was analysed sufficiently and justification for the tools used were provided. The authors explain how the themes emerged. Contradictory data was not discussed in the paper. The researcher considers their own role and how it may have impacted the results.
Is there a clear statement of findings?	The findings are explicitly presented in the paper. There is adequate discussion for and against the use of pharmacists to provide medication reviews and prescribing. There were three analysts in the study. The findings were discussed in relation to the original research question.
How valuable is the research?	The authors state that their findings are consistent with other studies, but they do not discuss how the findings may impact practice or policy.

Jackson et al., 2017

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors discuss the importance of the research.
Is a qualitative methodology appropriate?	Yes the qualitative methodology was appropriate – the purpose of the study was to explore the barriers and facilitators to the integration of PAs in general practice.
Was the research design appropriate to address the aims of the research?	Yes, authors provide explanation regarding the justification of the chosen methodology.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was appropriate. Purposive sampling was used

	to obtain a sample of both younger and older participants.
Was the data collected in a way that addressed the research issue?	Yes the method of data collection was justified. Initial fieldwork and a literature was conducted. Emerging themes from focus groups were used to develop the interview topic guide. The form of data was clear. Fieldwork data was collected using notes and transcribed audiotaped recordings.
Has the relationship between researcher and participants been adequately considered?	Authors state that a reflexive diary was discussed with one of the authors, who had no prior experience of the field. However, the authors do not state what potential impact this may have had on the findings.
Have ethical issues been taken into consideration?	Ethical approval was sought from the University of Sheffield Ethics Approval Board. However, no further discussion regarding ethical issues was presented in the paper.
Was the data analysis sufficiently rigorous?	Yes, an in-depth description of the analysis process was given.
Is there a clear statement of findings?	Yes, there is a clear statement of the findings. The authors discuss triangulation and the credibility of their findings.
How valuable is the research?	The authors highlight that the study provides new evidence in this area and discuss practice and policy implications..

Lamberts et al., 2010

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors provide a clear statement of the purpose of the study.
Is a qualitative methodology appropriate?	Yes the qualitative methodology was appropriate – the authors stated that the combination of both semi-structured telephone interviews and focus groups were used to elicit the opinions of more reserved participants and to profit optimally from the interaction in focus groups.
Was the research design appropriate to address the aims of the research?	Yes, authors provide explanation regarding the justification of the chosen methodology.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was appropriate.

Was the data collected in a way that addressed the research issue?	Yes the method of data collection was justified. Authors stated they used a semi-structured topic guide but did not state where the opic guide derived from or how it was developed. Authors discuss saturation of data – they state that a third focus group was not possible.
Has the relationship between researcher and participants been adequately considered?	No, the authors do not discuss the relationship between the researcher and patients.
Have ethical issues been taken into consideration?	No, details regarding ethical approval were not given in the paper and no further ethical issues were discussed in the paper.
Was the data analysis sufficiently rigorous?	Yes, the data analysis was sufficiently rigorous. The authors also used a quantitative data analysis (Chi Square) to analyse themes.
Is there a clear statement of findings?	Yes, a clear statement of the findings was provided. There were three analysts. The findings were discussed in relation to their original aims.
How valuable is the research?	Authors discuss their findings in relation to existing literature from other countries. The authors discuss their findings in relation to current practice, but they do not discuss policy.

Stewart et al., (2009)

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided and authors clearly state that the study identifies an evidence gap in the literature.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate, the purpose of the study was to explore the views of pharmacists, doctors and patients on pharmacist prescribers.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; however, the authors did not discuss the justification for the research design.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the researchers used purposive sampling to recruit participants. The researchers provided explanation regarding the type of participants they wanted to include in the study.
Was the data collected in a way that addressed the research issue?	Yes, the data collection was collected in a way that addressed the study aim. Telephone interviews were conducted using two different topic guides (one for the

	healthcare professional and one for the patients) based on published literature. Interviews audio-recorded and transcribed verbatim. The authors discuss saturation on data in the limitations section.
Has the relationship between researcher and participants been adequately considered?	The relationship between the researcher and participants was not explicitly discussed in the paper.
Have ethical issues been taken into consideration?	Yes, participants were given information sheets provided informed consent. Ethical approval was sought.
Was the data analysis sufficiently rigorous?	Yes, the NVivo software was used to analyse the data. Emerging themes were identified and coded independently by two researchers.
Is there a clear statement of findings?	Yes, there is a clear statement of findings. There is discussion of evidence for both for and against pharmacists prescribing.
How valuable is the research?	Yes, the study is the first to conducted at a national level exploring the views of pharmacists, doctors and patients on pharmacist prescribing. The researcher discusses their findings in relation to other countries. The authors make recommendations for future research.

Taylor et al. 2013

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors explain the importance of the research.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate for addressing the research aims.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; however, the researcher did not justify choice of method.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was acceptable for the aims of the study. Purposive sampling was conducted.
Was the data collected in a way that addressed the research issue?	The authors provided clear information with regards to the methodology and how the data was collected. An interview topic guide was used; however it is not stated how the topic guide was developed. Saturation of data was discussed.
Has the relationship between researcher and participants been adequately considered?	One researcher conducted the interview and three separate researchers analysed the

	results. However, no information is given about how the researchers may have influenced the findings.
Have ethical issues been taken into consideration?	Informed consent was provided from each participant. However, no information regarding ethical approval or further ethical considerations are given in the paper.
Was the data analysis sufficiently rigorous?	Yes, information regarding the method of analysis is given. Three researchers analysed the data independently and how themes were derived was discussed in the paper. The paper presents sufficient data to present the findings. However, they did not critically examined their own role.
Is there a clear statement of findings?	Yes, there is a clear statement of findings in relation to the study aim. The authors did discuss the credibility of their findings in terms of immersion and crystallization.
How valuable is the research?	Yes, the authors discuss recommendations for future research and study limitations are discussed.

Van der Biezen et al., 2017.

CASP item	**Answer**
Was there a clear statement of the aims of the research?	Yes, a clear statement of the aim of the research was provided. The authors explain the importance of the research.
Is a qualitative methodology appropriate?	Yes, qualitative methodology was appropriate, the purpose of the study was to gain insight into factors that influence GPs and managers to employ nurse practitioners in primary care.
Was the research design appropriate to address the aims of the research?	Yes, the research design was appropriate to address the aims of the study; however, the authors did not provide reasons for their choice of research design in the paper.
Was the recruitment strategy appropriate to the aims of the research?	Yes, the recruitment strategy was appropriate for the aims of the study. All organisations that received a grant to train a PA/NP within their organization.
Was the data collected in a way that addressed the research issue?	The authors provided clear information with regards how the data was collected. The topic areas were developed by the research team, the authors do not state whether the topic areas were informed by the literature. Saturation of data is discussed.
Has the relationship between researcher and participants been adequately considered?	The interviews were conducted by a researcher trained in qualitative research

	methods; however, the relationship between the researcher and participants was not discussed in the paper.
Have ethical issues been taken into consideration?	Ethical approval was sought. The authors noted that the topic might be considered controversial.
Was the data analysis sufficiently rigorous?	Yes, the data analysis was sufficiently rigorous. The data was independently coded by two researchers. Atlas.ti software was used in the coding process.
Is there a clear statement of findings?	Yes, there is a clear statement of findings in relation to the study aim. There is adequate discussion of the evidence both for and against.
How valuable is the research?	Yes, the authors discuss the findings in relation to current policy and make recommendations for future research.

Appendix 7: Survey instrument

Page 1 – Introduction

Role substitution in primary care

Due to the increasing demands placed on general practice and the increasing shortage of general practitioners (GPs), 'role substitution' is being carried out in many primary care practices. Role substitution refers to the substitution of GPs by allied health professionals such as nurses, pharmacists and physiotherapists to provide general medical services in primary care. That is, allied health professionals taking on roles that would normally be completed by GPs.

The purpose of this survey is to assess the current use of role substitution in the NHS. Your survey answers are anonymous and will be used to inform my PhD research project on role substitution. By completing this survey you consent to your answers being used for research in the future.

If you have any queries about this assessment, please contact the study team using the details below:

Bethany Anthony (PhD student) E-mail: b.anthony@bangor.ac.uk

Dr Julia Hiscock (Main Supervisor) E-mail: j.hiscock@bangor.ac.uk

Any complaints should be directed to Professor Chris Burton at c.burton@bangor.ac.uk

This survey is voluntary. Your answers will be treated anonymously and with complete confidentiality. Your answers may be used for future research.

By clicking **'next'** you agree to take part in the survey.

Page 2 – Background questions

1. How many general practices within your cluster are directly managed by the NHS Health Board? *(Closed question – numerical response – free text answer)*

2. How many general practices within your cluster are commissioned/contracted? *(Closed question – numerical response – free text answer)*

3. Do you perceive there to be a workforce crisis in primary care? *(Closed question – ordinal response)*

- Definitely
- Somewhat
- Not at all

4. Do you have a strategy for increasing role substitution in the practices within your cluster? *(Closed question – ordinal response)*

- Yes
- No
- Don't know

5. Please use this section to provide any additional/explanatory comments you may wish to add regarding role substitution and/or any comments regarding possible strategy to increase role substitution within your cluster. *(Open question – free text answer)*

Page 3 - Role substitution in your cluster

6. Approximately what percentage of the practices in your cluster are using role substitution? *(Closed question – numerical response – free text answer)*

7. Approximately what percentage of the practices in your cluster employ advanced nurse practitioners that provide face-to-face first contact consultations to patients? Examples of face-to-face first contact consultations with the advanced nurse practitioner may include minor illness, chronic disease management, routine health screening, vaccinations, sexual health consultations etc. *(Closed question – numerical response – free text answer)*

8. Approximately what percentage of the practices in your cluster employ pharmacists to provide face-to-face consultations with patients? Examples of face-to-face first contact consultations with the pharmacist may include medication reviews, medication management, high risk drug monitoring and educational support etc. *(Closed question – numerical response – free text answer)*

9. Approximately what percentage of the practices in your cluster employ physiotherapists to provide face-to-face first contact consultations to patients? Examples of face-to-face first contact consultations with the physiotherapist may include initial assessment and management of musculoskeletal presentations etc. *(Closed question – numerical response – free text answer)*

10. Approximately what percentage of the practices in your cluster employ occupational therapists to provide face-to-face first contact consultations to patients? Examples of face-to-face first contact consultations with the occupational therapist may include social prescribing, consultations to help patients with chronic or disabling illnesses maintain independence etc. *(Closed question – numerical response – free text answer)*

11. Approximately what percentage of the practices in your cluster employ paramedics to provide face-to-face first contact general medical services to patients including home visits? Examples of face-to-face first contact consultations with the paramedic may include acute home visits, acute presentations in primary care, minor illness, minor injury etc. *(Closed question – numerical response – free text answer)*

12. Approximately what percentage of the practices in your cluster employ any other type of Allied Health Professional to provide face-to-face first contact consultations to patients (e.g., other therapists, exercise specialists, mental health practitioners etc.) *(Closed question – numerical response – free text answer)*

13. If any of the practices in your cluster employ any other types of allied health professionals to provide face-to-face first contact consultations (e.g. physician associates, exercise specialists, mental health practitioners, other therapists etc.), please specify their exact professional roles or qualifications type(s) of the allied health professionals in the box below. *(Open question – free text answer)*

Page 4 – End of survey

Thank you for taking the time to complete the survey.

Appendix 8: HRA and Health and Care Research Wales (HCRW) approval letter

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Bethany Anthony
113 Cae Glas
Rhiwlas
Bangor
LL57 4HG

Email:
Research-permissions@wales.nhs.uk

05 November 2018

Dear Miss Anthony

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Role substitution: the provision of general medical services by non-medical health professionals – Stage 1 survey.**
IRAS project ID:	**239689**
Protocol number:	**NA**
REC reference:	**18/HCRW/0004**
Sponsor	**School of Healthcare Sciences**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

How should I continue to work with participating NHS organisations in England and Wales?
You should now provide a copy of this letter to all participating NHS organisations in England and Wales, as well as any documentation that has been updated as a result of the assessment.

Following the arranging of capacity and capability, participating NHS organisations should formally confirm their capacity and capability to undertake the study. How this will be confirmed is detailed in the "*summary of assessment*" section towards the end of this letter.

You should provide, if you have not already done so, detailed instructions to each organisation as to how you will notify them that research activities may commence at site following their confirmation of capacity and capability (e.g. provision by you of a 'green light' email, formal notification following a site initiation visit, activities may commence immediately following confirmation by participating organisation, etc.).

It is important that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details of the research management function for each organisation can be accessed here.

Appendix 9: Survey invitation email (Bilingual - English and Welsh)

Dear *Name*, My name is Bethany Anthony and I am a first year PhD student from the School of Healthcare Sciences, Bangor University, and I am working under the supervision of **Dr Julia Hiscock, Professor Nefyn Williams and Dr Joanna Charles.** As part of my PhD, I will be conducting a survey to assess the current use of role substitution in the NHS in Wales. Due to the increasing demands placed on general practice and the increasing shortage of general practitioners (GPs), role substitution is being carried out in many primary care practices. I would like to include the perspectives of cluster leads on the usage of role substitution in primary care and I would like to invite you to participate in this **brief 10 minute survey.** Your answers will be treated anonymously and with complete confidentiality. Your answers may be used for future research. Please use the following link to participate in the survey: https://bangor.onlinesurveys.ac.uk/role-substitution-in-primary-care-pilot-111017-copy Your survey answers are anonymous and will be used to inform my PhD research project on role substitution. By completing this survey you consent to your answers being used for research in the future. If you have any queries about this assessment, please contact the study team using the details below:	Annwyl *Enw*, Fy enw yw Bethany Anthony ac rwy'n fyfyrwraig PhD blwyddyn gyntaf yn Ysgol Gwyddorau Gofal Iechyd, Prifysgol Bangor, ac rwy'n gweithio dan oruchwyliaeth **Dr Julia Hiscock, Yr Athro Nefyn Williams a Dr Joanna Charles.** Fel rhan o'm gradd PhD, byddaf yn cynnal arolwg i asesu'r defnydd presennol o ddirprwyo swyddogaethau yn y GIG yng Nghymru. Oherwydd y galw cynyddol ar feddygaeth gyffredinol a'r prinder cynyddol o feddygon teulu (GPs), mae 'dirprwyo swyddogaethau' yn digwydd mewn llawer o sefyllfaoedd gofal sylfaenol. Hoffwn gynnwys safbwyntiau arweinwyr clystyrau ar ddefnyddio dirprwyo swyddogaethau mewn gofal sylfaenol a hoffwn eich gwahodd i gymryd rhan yn yr arolwg byr 10 munud hwn. Ymdrinnir â'ch atebion yn ddi-enw ac yn gwbl gyfrinachol. Gall eich atebion gael eu defnyddio ar gyfer ymchwil yn y dyfodol. Defnyddiwch y linc canlynol i gymryd rhan yn yr arolwg: https://bangor.onlinesurveys.ac.uk/role-substitution-in-primary-care-pilot-111017-copy Bydd eich atebion i'r arolwg yn ddi-enw a byddaf yn eu defnyddio ar gyfer fy mhroject ymchwil PhD ar ddirprwyo swyddogaethau. Trwy lenwi'r arolwg hwn rydych yn cydsynio i'ch atebion gael eu defnyddio mewn ymchwil yn y dyfodol. Os oes gennych unrhyw gwestiynau am yr asesiad hwn, cysylltwch â thîm yr astudiaeth os gwelwch yn dda gan ddefnyddio'r manylion isod:

Bethany Anthony (PhD student) E-mail: b.anthony@bangor.ac.uk Dr Julia Hiscock (Main Supervisor) E-mail: j.hiscock@bangor.ac.uk Any complaints should be directed to Professor Chris Burton: c.burton@bangor.ac.uk Many thanks & kind regards, Bethany Anthony	Bethany Anthony (myfyriwr PhD) E-bost: b.anthony@bangor.ac.uk Dr Julia Hiscock (Prif Oruchwyliwr) E-bost: j.hiscock@bangor.ac.uk Dylid anfon unrhyw gwynion at Yr Athro Chris Burton ar c.burton@bangor.ac.uk Diolch yn fawr a chofion caredig, Bethany Anthony

Appendix 10: Survey reminder email (Bilingual - English and Welsh)

Dear *Name*,	Annwyl *Enw*,
REMINDER: Survey of role substitution in primary care	**NODYN ATGOFFA:** Arolwg ar ddirprwyo swyddogaethau mewn gofal sylfaenol
You may have already received an e-mail inviting you to participate in this survey. If you have already completed and returned the questionnaire, please accept our thanks and delete this e-mail as no further involvement is required. If you have not completed the questionnaire please take the time to consider helping us with this important research.	Efallai eich bod wedi derbyn e-bost yn barod yn eich gwahodd i gymryd rhan yn yr arolwg hwn. Os ydych wedi llenwi a dychwelyd yr holiadur yn barod derbyniwch ein diolch am hynny a dilëwch y neges e-bost hon gan nad oes angen i chi gymryd rhan bellach. Os nad ydych wedi llenwi'r holiadur, a fyddech cystal â chymryd amser i ystyried ein helpu gyda'r ymchwil bwysig hon.
My name is Bethany Anthony and I am a first year PhD student from the School of Healthcare Sciences, Bangor University, and I am working under the supervision of **Dr Julia Hiscock, Professor Nefyn Williams and Dr Joanna Charles.** As part of my PhD, I will be conducting a survey to assess the current use of role substitution in the NHS in Wales. Due to the increasing demands placed on general practice and the increasing shortage of general practitioners (GPs), role substitution is being carried out in many primary care practices.	Fy enw yw Bethany Anthony ac rwy'n fyfyrwraig PhD blwyddyn gyntaf yn Ysgol Gwyddorau Gofal Iechyd, Prifysgol Bangor, ac rwy'n gweithio dan oruchwyliaeth **Dr Julia Hiscock, Yr Athro Nefyn Williams a Dr Joanna Charles.** Fel rhan o'm gradd PhD, byddaf yn cynnal arolwg i asesu'r defnydd presennol o ddirprwyo swyddogaethau yn y GIG yng Nghymru. Oherwydd y galw cynyddol ar feddygaeth gyffredinol a'r prinder cynyddol o feddygon teulu (GPs), mae 'dirprwyo swyddogaethau' yn digwydd mewn llawer o sefyllfaoedd gofal sylfaenol.
I would like to include the perspectives of cluster leads on the usage of role substitution in primary care and I would like to invite you to participate in this **brief 10 minute survey.**	Hoffwn gynnwys safbwyntiau arweinwyr clystyrau ar ddefnyddio dirprwyo swyddogaethau mewn gofal sylfaenol a hoffwn eich gwahodd i gymryd rhan yn yr **arolwg byr 10 munud** hwn.
Your answers will be treated anonymously and with complete confidentiality. Your answers may be used for future research.	Ymdrinnir â'ch atebion yn ddi-enw ac yn gwbl gyfrinachol. Gall eich atebion gael eu defnyddio ar gyfer ymchwil yn y dyfodol.
Please use the following link to participate in the survey:	Defnyddiwch y linc canlynol i gymryd rhan yn yr arolwg:

https://bangor.onlinesurveys.ac.uk/role-substitution-in-primary-care-pilot-111017-copy Your survey answers are anonymous and will be used to inform my PhD research project on role substitution. By completing this survey you consent to your answers being used for research in the future. If you have any queries about this assessment, please contact the study team using the details below: Bethany Anthony (PhD student) E-mail: b.anthony@bangor.ac.uk Dr Julia Hiscock (main supervisor) E-mail: j.hiscock@bangor.ac.uk Any complaints should be directed to Professor Chris Burton: c.burton@bangor.ac.uk Many thanks & kind regards, Bethany Anthony	https://bangor.onlinesurveys.ac.uk/role-substitution-in-primary-care-pilot-111017-copy Bydd eich atebion i'r arolwg yn ddi-enw a byddaf yn eu defnyddio ar gyfer fy mhroject ymchwil PhD ar ddirprwyo swyddogaethau. Trwy lenwi'r arolwg hwn rydych yn cydsynio i'ch atebion gael eu defnyddio mewn ymchwil yn y dyfodol. Os oes gennych unrhyw gwestiynau am yr asesiad hwn, cysylltwch â thîm yr astudiaeth os gwelwch yn dda gan ddefnyddio'r manylion isod: Bethany Anthony (myfyriwr PhD) E-bost: b.anthony@bangor.ac.uk Dr Julia Hiscock (Prif Oruchwyliwr) E-bost: j.hiscock@bangor.ac.uk Dylid anfon unrhyw gwynion at Yr Athro Chris Burton ar c.burton@bangor.ac.uk Diolch yn fawr a chofion caredig, Bethany Anthony

Appendix 11: Data sharing agreement for budget impact analysis

Primary care practice (name removed) and School of Healthcare Sciences PhD Transfer and Storage Security

Data Transfer

- The PhD data will be physically transferred from the practice (*name removed*) database to Bangor University on a separate database. The PhD student (BFA) will manually enter the data required for her Budget Impact Analysis (BIA) into the database she has created. The separate database will be created on a password protected, encrypted laptop and stored in a password protected folder. This laptop will be kept on one's person at all times during the transfer. After the data transfer, the laptop will remain secure either at university premises or at the home of the PhD student (BFA). If an encrypted portable USB drive is required for data transfer, the files on the encrypted portable USB drive will be deleted immediately after the data has been transferred to the password protected, encrypted laptop
- The PhD student (BFA) will typically complete the transfer. If circumstances dictate then a member of the practice management team (*name removed*) who is directly involved in the PhD can also complete the data transfer.

Data Storage

- The PhD data, as well other PhD-related files (e.g., minutes of meetings, preliminary proposals), will be stored in a master file on BFA's personal disk space on Bangor University's secure network server (i.e., M Drive). Files stored on this disk space are encrypted and require a username and password to access them and are backed up every night.

- This master file will also be stored and backed-up on the Bangor University U: Drive, which is again encrypted and requires a username and password to access the drive and files are backed up every night.
- The excel data files will also be encrypted using the Microsoft Office 2013 encryption system, and stored in a password protected folder for additional security.

Data Storage Security Audit

- A member of the PhD supervisory team (JMC) will complete an annual inspection of the master file and office facilities to ensure that the data storage security procedures are implemented as agreed.

Data Access in Bangor University

- When necessary (e.g., in PhD supervision meetings), BFA will transfer the data to the supervisors' computers using a portable USB drive. This data will be deleted from the portable USB drive as soon as the data transfer is complete and the data will be deleted from the supervisors computers when no longer needed.
- If persons external to the supervisory team wish to see the type of analysis being conducted, for example PhD committee chairperson, no data will be physically transferred to an external person. They will be required to sit side-by-side with BFA, whilst she accesses the files from her personal disk space on Bangor University's secure network server (i.e., M Drive).

- The data will only be shown to an external person in limited circumstances and only after approval has been attained by a member of the practice manager team (name removed) and PhD Supervisor (Dr Joanna Charles).

Data Security Breach Procedure

- The following steps will be followed if a breach occurs:

1. Inform the University's Head of Compliance (Gwenan Hine) of the breach. The breach will be managed in accordance with the Procedures for the Management of a Suspected Data Protection Breach.
2. Contain the situation (e.g., liaise with the University IT support team to close down a compromised network) and develop and implement a recovery plan (e.g., take steps to track down lost data).
3. Conduct a risk assessment (e.g., if data is lost, is encryption in place? If data is stolen, is there a risk of reputational damage or harm (e.g., financial) to the practice?
4. Consider if it is necessary to notify any relevant regulatory authorities (e.g., police) about the breach affected by it. Consideration of this issue should take any legal, contractual or moral requirements into account.

   Bangor University are legally obliged to and will inform the practice (*practice name removed*) if the university's network server is breached. The University's Head of Compliance (Gwenan Hine) will inform BFA if this occurs, and BFA will inform the practice manager *(name removed*)
5. Evaluate the breach (e.g., can we be satisfied that we know what data was lost or stolen?); evaluate the response to it (e.g., were the previous steps followed?), and re-evaluate the security procedures (e.g., what weak points were exposed in the breach and what can be done to strengthen them?).

6. Consider informing the Information Commissioner's Office.

Data Archive

- Data should be archived in a secure Bangor University facility for at least 1 year after the completion of the PhD in case of a query by responsible authorities. Data may be kept for a longer retention period if a future research opportunity in the same field arises. An archive log will also be maintained to record all essential files that have been entered into it, and to track and retrieve files on loan.

I hereby agree that I have read and understood the data sharing agreement, and agree to the terms described.

Signed ……..

Print name……

Date……

I, the PhD student conducting this project confirm I have explained the data sharing agreement and will uphold the terms described.

Signed ……..

Print name…….

Date……

Appendix 12: Participant invitation letter (patients)

Letter to be sent out by GP practice to identified patients

Version 2 Date:

Dear [name of patient]

Invitation to take part in the 'Role substitution in primary care study'

You are invited to take part in a face-to-face interview as part of a research study conducted by researchers from the School of Healthcare Sciences, Bangor University. Interviews are voluntary and are being conducted to find out what patients think about seeing other health care professionals (such as advanced nurse practitioners, pharmacists and occupational therapists) instead of seeing a GP. This new development is called role substitution.

We would like to invite you to be interviewed as part of this research. We are contacting patients from general medical practices to invite them for a discussion with a researcher. The interview will take place locally at your home or at another location if you prefer. The interview will last for an hour and a half at the most. In the interview we will talk about your views about seeing other groups of allied health professionals such as advanced practice nurses or pharmacists instead of having a consultation with the GP.

We are attaching an information sheet which provides more details about the study.

If you would like to take part:

Please complete the attached reply slip and return it to us by posting it in the yellow box at the reception desk at you GP surgery. We will then contact you to arrange a convenient day to meet to conduct the interview. Alternatively, you can contact us by email or by text message (contact details below) to let us know if you would like to take part in the study

Contact details removed

We would appreciate if you could provide a response within two weeks of receiving the invitation.

If you would like more information:

Please either complete the attached reply slip indicating this and return it to us by posting it in the yellow box located at the reception of your general practice, and a researcher will then contact you; or you can ring or e-mail the researcher – *contact details removed*

If you do not wish to take part

If you do not wish to take part that is fine, it is up to you to decide whether you want to take part or not. Please be assured that this will not affect the care you receive. We would be grateful if you would complete the attached reply slip indicating this and return it to us in the yellow box located in the reception at your general medical practice, so that we know to not bother you again. Alternatively, you can text message or e-mail the researcher, Bethany phone: e-mail: *Contact details removed*

Many thanks.

Yours sincerely,

Practice manager

Tel: Insert here

ATTACHED: Patient information sheet, reply slip

Appendix 13: Participant information sheet (patients)

COLEG IECHYD A GWYDDORAU YMDDYGIAD

PRIFYSGOL BANGOR

COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

BANGOR UNIVERSITY

Participant information sheet
for individual face-to-face interview participation
Version number: 4
Date: 30/01/2019

Experiences and views relating to role substitution in primary care

You are being invited to take part in a PhD student research study. Before you decide whether or not to be involved, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please contact us using the details below.

Thank you for reading this.

What is this study about?

This study aims to find out about how people feel about 'role substitution' in primary care, where roles and consultations that would have previously been completed by the GP, are now being completed by other health care staff. In particular, we want to know how patients feel about seeing other groups of allied health professionals such as advanced practice nurses or pharmacists instead of having a consultation with the GP. To investigate these feelings we will be conducting interviews with patients from your general medical practice.

Why have I been chosen?

You have been chosen because you are a registered patient at Practice A or Practice B surgery *(practice names removed*). We are interested in talking to a wide range of people who attend the practice and all views and experiences are important to us.

Do I have to take part?

No. Your taking part in this study is entirely voluntary and it is up to you to decide whether or not to take part. You have been given this information sheet to keep and, if you decide to take part, you will be asked to sign a consent form and be given a copy of the form. If you decide to take part you are still free to withdraw at any time and without giving a reason. Your decision will not affect the standard of care you receive now or in the future. In keeping with good practice, the research team will inform your GP that you have taken part in this study.

What will I be asked to do if I decide to take part?

If you decide to take part you will be contacted by a researcher who will invite you to participate

in an interview. The interview will be led by a researcher from Bangor University. Following some introductory questions, you will be invited to discuss your experiences and views about having appointments with healthcare professionals (e.g. advanced nurse practitioners, pharmacist and occupational therapists etc.) instead of a GP at your general practice surgery, with the whole interview lasting no more than 1 and a half hours. The conversation will be relaxed and informal.

The interviews will take place in the privacy of your home, or if you prefer we can arrange an alternative venue and we will offer you a change of times and dates.

Will my taking part be kept confidential?

All information collected in this study will be kept strictly confidential. Discussions will be audio-recorded and written out (transcribed) after the session to allow researchers to analyse the discussions. Your comments will be given an anonymous code during transcription so it will not be possible to personally identify you from the transcripts, or in any subsequent verbal or written account. Recordings will not be heard by anyone other than approved Bangor University transcribers and researchers. The audio recordings will be transferred to secure password-protected computers at Bangor University. Recording devices will be checked to ensure all recorded material has been erased. Audio recordings will be erased from the computers three years after the study has ended.

Bangor University is the sponsor for this study based in Bangor, Wales UK. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bangor University will keep identifiable information about you for 3 years after the study has finished/until 2022.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information by contacting Bethany Anthony (PhD student) E-mail: b.anthony@bangor.ac.uk

When you agree to take part in a research study, the information about your health and care may be provided to researchers running other research studies in this organisation and in other organisations. These organisations may be universities, NHS organisations or companies involved in health and care research in this country or abroad. Your information will only be used by organisations and researchers to conduct research in accordance with the UK Policy Framework for Health and Social Care Research.

This information will not identify you and will not be combined with other information in a way that could identify you. The information will only be used for the purpose of health and care research, and cannot be used to contact you or to affect your care. It will not be used to make decisions about future services available to you, such as insurance.

Will I be reimbursed for participating in an interview?

You will not receive any payment for taking part in an interview but we will reimburse reasonable travel expenses.

What are the possible disadvantages and risks of taking part?

We do not foresee any disadvantages or risks of you taking part in this interview. However, a possible disadvantage is that participation will require a maximum of 1 and a half hours of your time. Should the discussion bring about any worries or concerns, we will encourage you to talk to your general practitioner.

What are the possible benefits of taking part?

Taking part in an interview will be an opportunity for you to express your views and experiences relating to what is happening in your general medical practice. Whilst there are no direct advantages of taking part, it is hoped that the results of this study will better inform health professionals and policy makers of the perceptions of patients regarding role substitution in primary care. As a consequence of this, it is anticipated that health professionals will be able to improve their approach, which may well be of benefit to yourself and others in the future.

What if something goes wrong?

We do not foresee any circumstance where you will come to harm by participating in this interview. If you are harmed due to our negligence, then you may have grounds for a legal action but you may have to pay for it.

Regardless of this, if you wish to complain about any aspect of the way you have been approached or treated during the course of this study, please contact Professor Christopher Burton (Head of School, School of Healthcare Sciences) email: c.burton@bangor.ac.uk telephone: 01248 382556. If you are unhappy or dissatisfied about any aspect of your participation, we would ask you to tell us in the first instance so that we can try to resolve any concerns and find a solution.

What happens at the end of the research study?

You will continue to receive the usual treatment as part of NHS care. The results of the study will be published in a scientific journal and will be submitted for presentation at relevant local and national meetings so that the findings can inform clinical management in the future.

Who is organising and funding the research?

This research is being organised jointly by a research team at Bangor University. This study is being conducted as part of a PhD project and is funded by Health and Care Research Wales.

Who has reviewed the study?

This study was reviewed and approved by the NHS Health Research Authority West Midlands - Solihull Research Ethics Committee. This study has also been reviewed and approved by the Healthcare and Medical Sciences Academic Ethics Committee at Bangor University and the NHS Research Ethics Committee – West (Wales REC – 5).

What should I do if I would like further information about the study?

For more information about this research, please contact the Chief Investigator:

Bethany Anthony
School of Healthcare Sciences, Bangor University
Fron Heulog,
Bangor, Gwynedd,
LL57 2EF
Tel: Email:

What should I do if I have any concerns about the study?

If you have any concerns about the study, please contact the PhD project supervisor in the first instance

Dr Julia Hiscock (PhD supervisor)
Tel:
Email:

If you continue to have concerns you can contact Professor Christopher Burton (Head of School)

Professor Christopher Burton,
Head of School
School of Healthcare Sciences, Bangor University,
Fron Heulog,
Bangor,
Gwynedd,
LL57 2EF.

Tel: contact details removed
Email: contact details removed

What do I do now?

If you return the reply slip, a member of the research team will contact you in the next few days. Please also feel free to telephone the research team at Bangor University to ask any further questions or express your interest in taking part. If you agree to take part in the study you will be asked to sign two copies of the accompanying consent form at the interview. One copy of the consent form and this information sheet will be for you to keep. The second copy of the consent form will be retained by the research team.
Thank you for taking the time to read through the details of this study and considering taking part.

Appendix 14: Participant reply slip (for patients and team members)

Version 1 Date: 30.01.19

REPLY SLIP: Role substitution in primary care

Please return this return slip to the YELLOW box at the reception of your GP surgery ☐

Please tick as appropriate:

I would like to take part in the above mentioned Study. ☐

I would like more information about the Study. ☐

I would prefer not to take part in the Study.

Contact Details: NAME_____

ADDRESS_____

_____

_____

POSTCODE_____

TELEPHONE NUMBER_____

MOBILE NUMBER_____

EMAIL ADDRESS_____

PREFERRED TIME TO BE CONTACTED

_____

_____

_____

Appendix 15: Participant invitation letter (primary care team members)

Letter to be given out by the practice manager

Version 2 Date: 25.10.18

Dear [name of health care staff member]

Invitation to take part in the 'Role substitution in primary care study'

You are invited to take part in a face-to-face interview as part of a research study conducted by researchers from the School of Healthcare Sciences, Bangor University. Interviews are voluntary and are being conducted to explore patient opinions of role substitution in primary care. Due to the increasing demands placed on general practice and the increasing shortage of general practitioners (GPs), role substitution is now being carried out in many primary care practices. 'Role substitution' refers to the roles and consultations that would have previously been completed by the GP, but are now being completed by other health care staff including advanced nurse practitioners, pharmacists, physiotherapists etc.

We would like to invite you to be interviewed as part of this research. We are contacting members of staff from general medical practices to invite them for an individual discussion with a researcher. The interview will take place at your place of work or at another location if you prefer. The interview will last for about 30 minutes, or 45 minutes at the most. In the interview we will talk about your views about other groups of allied health professionals such as advanced practice nurses and pharmacists completing some of the roles previously completed by the GP in general practice.

We are attaching an information sheet, which provides more details about the study.

If you would like to take part:

Please complete the attached reply slip and post it in the yellow box at the reception desk at your place of work. We will then contact you to arrange a convenient day to meet to conduct the interview. Alternatively, you can contact us by email or by text message (contact details below) to let us know if you would like to take part in the study (Contact details removed)

We would appreciate if you could provide a response within two weeks of receiving the invitation.

If you would like more information:

Please either complete the attached reply slip indicating this and return it to us by posting it in the yellow box located in the reception at your general practice, and a researcher will then contact you; or you can ring or e-mail the researcher, Bethany phone: e-mail: Contact details removed)

If you do not wish to take part

If you do not wish to take part that is fine, it is up to you to decide whether you want to take part or not. Please be assured that this will not affect your employment. We would be grateful if you would complete the attached reply slip indicating this and return it to the yellow box located at the general practice reception where you work, so that we know to not bother you again. Alternatively, you can text message or e-mail the researcher, Bethany phone: email: Contact details removed)

Many thanks.

Yours sincerely,

Practice manager

Tel: Insert here

ATTACHED: Health care staff information sheet and reply slip

Appendix 16: Participant information sheet (primary care team members)

COLEG IECHYD A GWYDDORAU YMDDYGIAD

PRIFYSGOL BANGOR

COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

BANGOR UNIVERSITY

Participant information sheet
for individual face-to-face interview participation
Version number: 4
Date: 30/01/2019

Experiences and views relating to role substitution in primary care

You are being invited to take part in a PhD student research study. Before you decide whether or not to be involved, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. If there is anything that is not clear or if you would like more information, please contact us using the details below.

Thank you for reading this.

What is this study about?

This study aims to find out about how people feel about 'role substitution' in primary care, where roles and consultations that would have previously been completed by the GP, are now being completed by other health care staff. In particular, we want to know how members of staff feel about other groups of allied health professionals such as advanced practice nurses or pharmacists completing some of the roles previously completed by the GP. To investigate these feelings we will be conducting interviews with members of staff at your place of work. We are also conducting interviews with patients registered with the practice.

Why have I been chosen?

You have been chosen because you are a member of staff at Practice A or Practice B *(practice names removed*). We are interested in talking to a wide range of people who work at the practice and all views and experiences are important to us.

Do I have to take part?

No. Your taking part in this study is entirely voluntary and it is up to you to decide whether or not to take part. You have been given this information sheet to keep and, if you decide to take part, you will be asked to sign a consent form and be given a copy of the form. If you decide to take part you are still free to withdraw at any time and without giving a reason. Your decision will not affect your employment now or in the future.

What will I be asked to do if I decide to take part?

If you decide to take part you will be contacted by a researcher who will invite you to participate

in an interview. The interview will be led by a researcher from Bangor University. Following some introductory questions, you will be invited to discuss your experiences and views relating to role substitution in general practice, with the whole interview lasting no more than 45 minutes. The conversation will be relaxed and informal.

The interviews will take place at your place of work or if you prefer we can arrange an alternative venue and we will offer a choice of times and dates.

Will my taking part be kept confidential?

All information collected in this study will be kept strictly confidential. Nevertheless, the research team are required by law to break confidentiality where cases of malpractice, abuse, or risk to self or others are disclosed. Such cases will be referred to the appropriate authority.

Discussions will be audio-recorded and written out (transcribed) after the session to allow researchers to analyse the discussions. Your comments will be given an anonymous code during transcription so it will not be possible to personally identify you from the transcripts, or in any subsequent verbal or written account. Recordings will not be heard by anyone other than Bangor University transcribers and researchers. The audio recordings will be transferred to secure password-protected computers at Bangor University. Recording devices will be checked to ensure all recorded material has been erased. Audio recordings will be erased from the computers three years after the study has ended.

Bangor University is the sponsor for this study based in Bangor, Wales UK. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bangor University will keep identifiable information about you for 3 years after the study has finished/until 2022.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information by contacting Bethany Anthony (PhD student) E-mail: b.anthony@bangor.ac.uk

When you agree to take part in a research study, the information about your health and care may be provided to researchers running other research studies in this organisation and in other organisations. These organisations may be universities, NHS organisations or companies involved in health and care research in this country or abroad. Your information will only be used by organisations and researchers to conduct research in accordance with the UK Policy Framework for Health and Social Care Research.

This information will not identify you and will not be combined with other information in a way that could identify you. The information will only be used for the purpose of health and care research, and cannot be used to contact you or to affect your care. It will not be used to make decisions about future services available to you, such as insurance.

Will I be reimbursed for participating in an interview?

You will not receive any payment for taking part in an interview but we will reimburse reasonable travel expenses.

What are the possible disadvantages and risks of taking part?

We do not foresee any disadvantages or risks of you taking part in this interview. However, a possible disadvantage is that participation will require a maximum of 45 minutes of your time. Should the discussion bring about any worries or concerns, we will encourage you to talk to your line manager.

What are the possible benefits of taking part?

Taking part in an interview will be an opportunity for you to express your views and experiences relating to what is happening at your place of work. Whilst there are no direct advantages of taking part, it is hoped that the results of this study will better inform health professionals and policy makers of the perceptions of patients regarding role substitution in primary care. As a consequence of this, it is anticipated that health professionals will be able to improve their approach, which may well be of benefit to yourself and others in the future.

What if something goes wrong?

We do not foresee any circumstance where you will come to harm by participating in this interview. If you are harmed due to our negligence, then you may have grounds for a legal action but you may have to pay for it.

Regardless of this, if you wish to complain about any aspect of the way you have been approached or treated during the course of this study, please contact Professor Christopher Burton (Head of School, School of Healthcare Sciences) email: c.burton@bangor.ac.uk telephone: 01248382556. If you are unhappy or dissatisfied about any aspect of your participation, we would ask you to tell us in the first instance so that we can try to resolve any concerns and find a solution.

What happens at the end of the research study?

The results of the study will be published in a scientific journal and will be submitted for presentation at relevant local and national meetings so that the findings can inform clinical management in the future.

Who is organising and funding the research?

This research is being organised jointly by a research team at Bangor University. This study is being conducted as part of a PhD project and is funded by Health and Care Research Wales.

Who has reviewed the study?

This study was reviewed and approved by the NHS Health Research Authority West Midlands - Solihull Research Ethics Committee. This study has also been reviewed and

approved by the Healthcare and Medical Sciences Academic Ethics Committee at Bangor University and the NHS Research Ethics Committee – West (Wales REC – 5).

What should I do if I would like further information about the study?

For more information about this research, please contact the Chief Investigator:

Bethany Anthony
School of Healthcare Sciences, Bangor University
Fron Heulog,
Bangor, Gwynedd,
LL57 2EF
Tel: Email: *(Contact details removed)*

What should I do if I have any concerns about the study?

If you have any concerns about the study, please contact the PhD project supervisor in the first instance:

Dr Julia Hiscock (PhD supervisor)
North Wales Centre for Primary Care Research
Bangor University
Cambrian 2
Wrexham
LL13 7YP
Tel:
Email: *(Contact details removed)*

If you continue to have concerns you can contact Professor Christopher Burton (Head of School)

Professor Christopher Burton,
Head of School
School of Healthcare Sciences, Bangor University,
Fron Heulog,
Bangor,
Gwynedd,
LL57 2EF.

Tel: *Removed*
Email: *Removed*

What do I do now?

If you return the reply slip, a member of the research team will contact you in the next few days. Please also feel free to telephone the research team at Bangor University to ask any further questions or express your interest in taking part. If you agree to take part in the study you will be asked to sign two copies of the accompanying consent form at the interview. One copy of the consent form and this information sheet will be for you to keep. The second copy

of the consent form will be retained by the research team.

Thank you for taking the time to read through the details of this study and considering taking part.

Appendix 17: Participant consent form (patients)

Consent form for participation in qualitative interviews

Version 3 19.02.19

Patient Identification Number for this interview: _____

Title of Project: Role substitution in primary care

Name of researcher: Miss Bethany Anthony

Name of supervisor: Dr Julia Hiscock

Please initial box

1. I confirm that I have read the information sheet dated 30.01.19 (version 4) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my involvement with the primary care practice being affected. However, once your data has been transcribed it will anonymised therefore we cannot retrieve your data to remove it from the study. ☐

3. I understand that the information collected about me will be used to support other research in the same area in the future, and may be shared anonymously with other researchers. ☐

4. I agree to this interview being audio-recorded ☐

5. I agree to the anonymised files being transcribed ☐

6. I agree that my GP will be told I have taken part in the study. ☐

7. I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

Appendix 18: Participant consent form (primary care team members)

Consent form for participation in qualitative interviews

Version 3 19.02.19

Healthcare Staff Identification Number for this interview: _____

Title of Project: Role substitution in primary care

Name of researcher: Miss Bethany Anthony

Name of supervisor: Dr Julia Hiscock

Please initial box

1. I confirm that I have read the information sheet dated 30.01.19 (version 4) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my involvement with the primary care practice being affected. However, once your data has been transcribed it will anonymised therefore we cannot retrieve your data to remove it from the study. ☐

3. I understand that the information collected about me will be used to support other research in the same area in the future, and may be shared anonymously with other researchers. ☐

4. I agree to this interview being audio-recorded ☐

5. I agree to the anonymised files being transcribed ☐

6. I agree that my GP will be told I have taken part in the study. ☐

7. I agree to take part in the above study. ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

Appendix 19: Letter informing GP of study participation

Version 1 Date: 12.12.18

Dear [name of GP]

Informing you of a patient taking part in the 'Role substitution in primary care' study

This is to inform you that your patient, [name of patient], has agreed to take part in the 'Role substitution in primary care' study.

The 'Role substitution in primary care' study is a qualitative study conducted by Bangor University as part of a PhD project funded by Health and Care Research Wales. Participation in the study will involve one face-to-face qualitative interview.

This study aims to find out about how people feel about 'role substitution' in primary care, where roles and consultations that would have previously been completed by the GP, are now being completed by other health care staff such as advanced nurse practitioners and allied health professionals. If you would like any further information or to discuss anything relating to this study please do get in touch.

Yours sincerely,

Bethany Anthony

PhD student, School of Health Sciences, Bangor University

Tel: 01248382130

Email: b.anthony@bangor.ac.uk

Appendix 20: HRA and Health and Care Research Wales (HCRW) Approval Letter

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Bethany Anthony
113 Cae Glas
Rhiwlas
Bangor
LL57 4HG

Email: hra.approval@nhs.net
Research-permissions@wales.nhs.uk

19 February 2019

Dear Miss Anthony

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Role substitution in primary care: the provision of general medical services by non-medical health professionals - Stage 3 qualitative interviews**
IRAS project ID:	**256747**
Protocol number:	**NA**
REC reference:	**19/WM/0020**
Sponsor	**School of Health Sciences, Bangor University**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

How should I continue to work with participating NHS organisations in England and Wales?
You should now provide a copy of this letter to all participating NHS organisations in England and Wales, as well as any documentation that has been updated as a result of the assessment.

Following the arranging of capacity and capability, participating NHS organisations should formally confirm their capacity and capability to undertake the study. How this will be confirmed is detailed in the "*summary of assessment*" section towards the end of this letter.

You should provide, if you have not already done so, detailed instructions to each organisation as to how you will notify them that research activities may commence at site following their confirmation of capacity and capability (e.g. provision by you of a 'green light' email, formal notification following a site initiation visit, activities may commence immediately following confirmation by participating organisation, etc.).

Appendix 21: Lone worker tracking form

Lone Worker Tracker Form

To be completed by lone worker prior to commencement of lone working and passed on or faxed/scanned to the Nwcpcr administration team

Lone Worker Details

Name of Lone Worker:	Department: School of Health Sciences, Bangor University
Contact Telephone Number:	Date:
Signature of Lone Worker:	
Contact details Academic Supervisor: *Name*: Julia Hiscock Phone: Mobile:	
Contact details next of kin: Tel no *E-mail:*	

Lone Working Details

Name of Person/Place Being Visited: Contact Telephone Number:	**FULL** Address: Post Code:
Approx Time In:	Approx Time Out:
To be signed off by office contact: Name(print): Job Title: Signature: Time Signed Off:	

*If lone working involves working alone in the office or on visits out of hours, please complete this form and inform line manager/senior manager (who will decide on suitable local procedure)

*If you are involved in any accident or breakdown, please advise office contact as well as the emergency services

Contact Numbers: Tel: removed

Appendix 22: Transcriber confidentiality agreement

PRIFYSGOL
BANGOR
UNIVERSITY

Transcriber Confidentiality Agreement:

As a transcriber of this research, I understand that I will be hearing recordings of confidential interviews. The information on these recordings has been revealed by interviewees who agreed to participate in this research on the condition that their interviews would remain strictly confidential. I understand that I have a responsibility to honour this confidentiality agreement.

I agree not to share any information on these recordings, about any party, with anyone except Bethany Anthony. Any violation of this and the terms detailed below would constitute a serious breach of ethical standards and I confirm that I will adhere to the agreement in full.

I, Emma Bray, Bulldog Transcription, agree to:

	Initials
1. Keep all the research information shared with me confidential by not discussing or sharing the content of the interviews in any form or format (e.g. mp3 files, CDs, transcripts) with anyone other than the Researcher of this project and Project Site Coordinator.	EB
2. Keep all research information in any form or format (e.g. mp3 files, CDs, transcripts) secure while it is in my possession.	EB
3. Return all research information in any form or format (e.g. mp3 files, CDs, transcripts) to the Researcher when I have completed the transcription tasks.	EB
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Transcriber:

Emma Grace Bray — (Print name)

Bray — (Signature)

03.07.2019 — (Date)

Researcher:

Bethany Anthony — (Print name)

B. Anthony — (Signature)

03/07/19 — (Date)

Appendix 23: Interview topic guide (patients)

Topic guide Version 3 Date: 31.01.19

TOPIC GUIDE PATIENTS

Research goals of the interviews:

- The barriers and facilitators to the **acceptability, suitability** and **appropriateness** of role substitution in primary care.
- The views of patients regarding the **value of care** provided by different allied health professionals.
- The views of patients regarding role substitution and treating **complex cases** in primary care.
- Views of patients regarding **patient navigation** to different health professionals

(a) Introduction, overview project

- Welcome, introduction of researcher and the project including background information regarding role substitution in primary, participant information sheet and written informed consent.
- Instructions regarding the interview: the interview will be recorded and you will be able to stop the interview at any time, confidentiality and anonymity, timing of the interview
- Researcher will ask for details of relevant information i.e. how often they have accessed the surgery in the last year.
- Take consent

(b) Major heading 1 - General views of role substitution - 25 min. (approximately):

Prompts:

- 1.1 - The benefits of role substitution
- 1.2 – The disadvantages of role substitution
- 1.3 – Acceptability of role substitution
- 1.4. – Appropriateness of role substitution
- 1.5 – The value of consulting with different allied-health professionals
- 1.6 – Past experiences:
    - Patients – experiences of being treated by allied health professionals and GPs

c.) Major heading 2 - Role substitution of complex cases – 15 mins (approximately)

Prompts:

- 2.1 – Confidence in allied health professionals treating people with complex conditions.
- 2.2 – Opinions about allied health professionals diagnosing new illnesses
- 2.3 – Views regarding allied health professionals level of training/experience/ability
- 2.4 – Risks or worries about seeing allied health professionals instead of GPs

d.) Major heading 3 – Patient navigation

Prompts:

- 3.1 – Advantages
- 3.2 – Disadvantages
- 3.3 – Experiences
- 3.4 –Success of patient navigation/possible strategies for improvement

f) <u>Ending & thanks</u>

- Anything else they may want to add that hasn't been brought up
- Thank the participant again.
- Explain how useful it has been
- Explain what will happen with the data
- Reassurances about confidentiality
- Offer to send them a lay summary of the findings.

Notes:

- The main difference between the interviews with the patients and health care staff is that questions to patients will focus on their perspectives regarding the receipt of role substitution, whereas questions to healthcare staff will focus on the delivery of role substitution.

- These are the general themes that will be covered in the interviews but the precise wording of phrases may be different.

Appendix 24: Interview topic guide (team members)

Topic guide Version 3 Date: 31.01.19

TOPIC GUIDE HEALTHCARE STAFF

Research goals of the interviews:

- The barriers and facilitators to the **acceptability, suitability** and **appropriateness** of role substitution in primary care.
- The views of nurses, allied health professionals, GPs and receptionists regarding the **value of care** provided by different allied health professionals.
- The views of nurses, receptionists, allied health professionals and GPs regarding role substitution and treating **complex cases** in primary care.
- Views of nurses, allied health professionals, GPs and receptionists regarding **patient navigation** to different health professionals

(a) Introduction, overview project

- Welcome, introduction of researcher and the project including background information regarding role substitution in primary, participant information sheet and written informed consent.
- Instructions regarding the interview: the interview will be recorded and you will be able to stop the interview at any time, confidentiality and anonymity, timing of interview
- Researcher will ask for details of relevant information: their post at their practice and how long they have been a member of staff.
- Take consent

(b) Major heading 1 - General views of role substitution - 25 min. (approximately):

Prompts:

- 1.1 - The benefits of role substitution
- 1.2 – The disadvantages of role substitution
- 1.3 – Acceptability of role substitution
- 1.4. – Appropriateness of role substitution
- 1.5 – The value of consulting with different allied-health professionals
- 1.6 – Past experiences:
    - Allied health professionals - Experiences of taking on new roles.
    - Receptionists - how have patients reacted to being referred to an allied health professionals?

c.) Major heading 2 - Role substitution of complex cases – 15 mins (approximately)

Prompts:

- 2.1 – Confidence in treating people with complex conditions.
- 2.2 – Opinions about different allied health professionals diagnosing new illnesses
- 2.3 – Views regarding allied health professionals level of training/experience/ability
- 2.4 – Risks or worries about allied health professionals completing roles previously completed by the GP.

d.) Major heading 3 – Patient navigation

Prompts:

- 3.1 – Advantages
- 3.2 – Disadvantages
- 3.3 – Experiences
- 3.4 – Training of receptionists
- 3.5 – Success of navigation e.g. patients sent to correct healthcare staff

g) <u>Ending & thanks</u>

- Anything else they may want to add that hasn't been brought up
- Thank the participant again.
- Explain how useful it has been
- Explain what will happen with the data
- Reassurances about confidentiality
- Offer to send them a lay summary of the findings.

Notes:

- The main difference between the interviews with the patients and health care staff is that questions to patients will focus on their perspectives regarding the receipt of role substitution, whereas questions to healthcare staff will focus on the delivery of role substitution.

- These are the general themes that will be covered in the interviews but the precise wording of phrases may be different.

Appendix 25: Example of Framework Index

INDEX FOR ROLE SUBSTITUION STUDY

PARTICIPANT CHARACERISTICS

- Patient or staff
- Code
- Male/Female
- Age – patients only
- No. times attended practice - patients only
- Frequent attender (FA), moderate attender (MA), infrequent attender (IA) – patients only
- No. chronic conditions – patients only
- Simple, moderate or chronic cases – patients only
- Role/job title – staff only
- Time working at practice – staff only

CATEGORY 1 – ROLE SUBSITUTION IN GENERAL

1. Role substitution – general views (including all AHPs)

1.1. Positives including experiences (specific to role substitution)

1.2. Negatives including concerns and experiences (specific to role substitution)

1.3. Acceptability

1.4. Other issues

1.5. Diagnosing new/worrying symptoms

1.6. Complex cases

CATEGORY 2 – BREAKDOWN OF HEALTHCARE PROFESSIONALS

2. Nurses

2.1. Role/ types of care (incl. new diagnoses, treating complex cases).

2.2. Competency and knowledge

2.3. Training and expertise (inc. education and qualifications)

2.4. Role boundaries and responsibility

2.5. Role clarity and understanding the role

2.6. Nurse prescribing

2.7. Availability and access

2.8. Relationship with the nurse (inc. trust, rapport, open discussions etc.)

2.9. Additional benefits, pros, including positive experiences

2.10. Cons, including negative experiences

2.11. Other issues

3. Pharmacists

3.1. Role/ types of care (incl. new diagnoses, treating complex cases).

3.2. Competency and knowledge

3.3. Training and expertise (inc. education and qualifications)

3.4. Role boundaries and responsibility

3.5. Role clarity and understanding the role

3.6. Pharmacist prescribing

3.7. Pharmacist medication reviews

3.8. Availability and access

3.9. Relationship with the pharmacist (including trust, rapport, open discussions etc.)

3.10. Additional benefits, pros, including positive experiences

3.11. Cons, including negative experiences

3.12. Other issues

4. Occupational therapists

4.1. Role/ types of care (incl. new diagnoses, treating complex cases).

4.2. Competency and knowledge

4.3. Training and expertise (including education and qualifications)

4.4. Role boundaries and responsibility

4.5. Role clarity and understanding the role

4.6. Availability and access

4.7. Relationship with the OT (including trust, rapport, open discussions etc.)

4.8. Additional benefits, pros, including positive experiences

4.9. Cons, including negative experiences

4.10. Other issues

5. Physiotherapists

5.1. Role/ types of care (incl. new diagnoses, treating complex cases).

5.2. Competency and knowledge

5.3. Training and expertise (including education and qualifications)

5.4. Role boundaries and responsibility

5.5. Role clarity and understanding the role

5.6. Availability and access

5.7. Relationship with the physiotherapist (including trust, rapport, open discussions etc.)

5.8. Additional benefits, pros, including positive experiences

5.9. Cons, including negative experiences

5.10. Other issues

General practitioners

6.1. Role/ types of care (incl. new diagnoses, treating complex cases).

6.2. Competency and knowledge

6.3. Training and expertise (including education and qualifications)

6.4. Role boundaries and responsibility

6.5 Role clarity and understanding the role

6.6. GP prescribing

6.7. GP medication reviews

6.8. Availability and access

6.9. Relationship with the GP (including trust, rapport, open discussions etc.)

6.10. Additional benefits, pros, including positive experiences

6.11. Cons, including negative experiences

6.12. Other issues

CATEGORY 3 – PATIENT NAVIGATION (CARE NAVIGATORS AND KEY TEAM COORDIANTORS)

7. Care Navigators

7.1. Role of care navigators

7.2. Relationship with care navigators

7.3. Privacy

7.4. Training and knowledge

7.5. Receptionist setting

7.6. Advantages including positive experiences

7.7. Disadvantages including negative experiences

7.8. Getting appointments/waiting times

7.9. Other issues

8. Key team coordinators

8.1. Role of key team coordinators

8.2. Relationship with key team coordinator

8.3. Privacy

8.4. Training and knowledge

8.5. Key team coordinator setting

8.6. Advantages including positive experiences

8.7. Disadvantages including negative experiences

8.8. Getting appointments/waiting times

8.9. Other issues

CATEGORY 4 – FACTORS RELATING TO THE PRACTICE, PRACTICE TEAM AND HEALTHCARE SYSTEM

9. Other factors relating to the general practice, practice team and wider healthcare system (not specific to a certain type of healthcare professional)

9.1. Patient demand, resources and staff shortages

9.2. Hierarchies

9.3. Teamwork

9.4. Support structures

9.5. Management team

9.6. Advantages (not specific to role substitution)

9.7. Disadvantages (not specific to role substitution)

9.8. Time constraints

9.9. Workload including GP workload

9.10. Stress

9.11. Job satisfaction (or lack of)

9.12. Costs

9.13. Other

CATEGORY 5 – OTHER PATIENT FACTORS

10. Factors relating to the patient (not specific to a certain type of healthcare professional)

10.1. Getting appointments/waiting times

10.2. Patient safety

10.3. Continuity of care and knowing medical history

10.4. Experiences

10.5. Other

OTHER

11. Other key issues (not covered above)

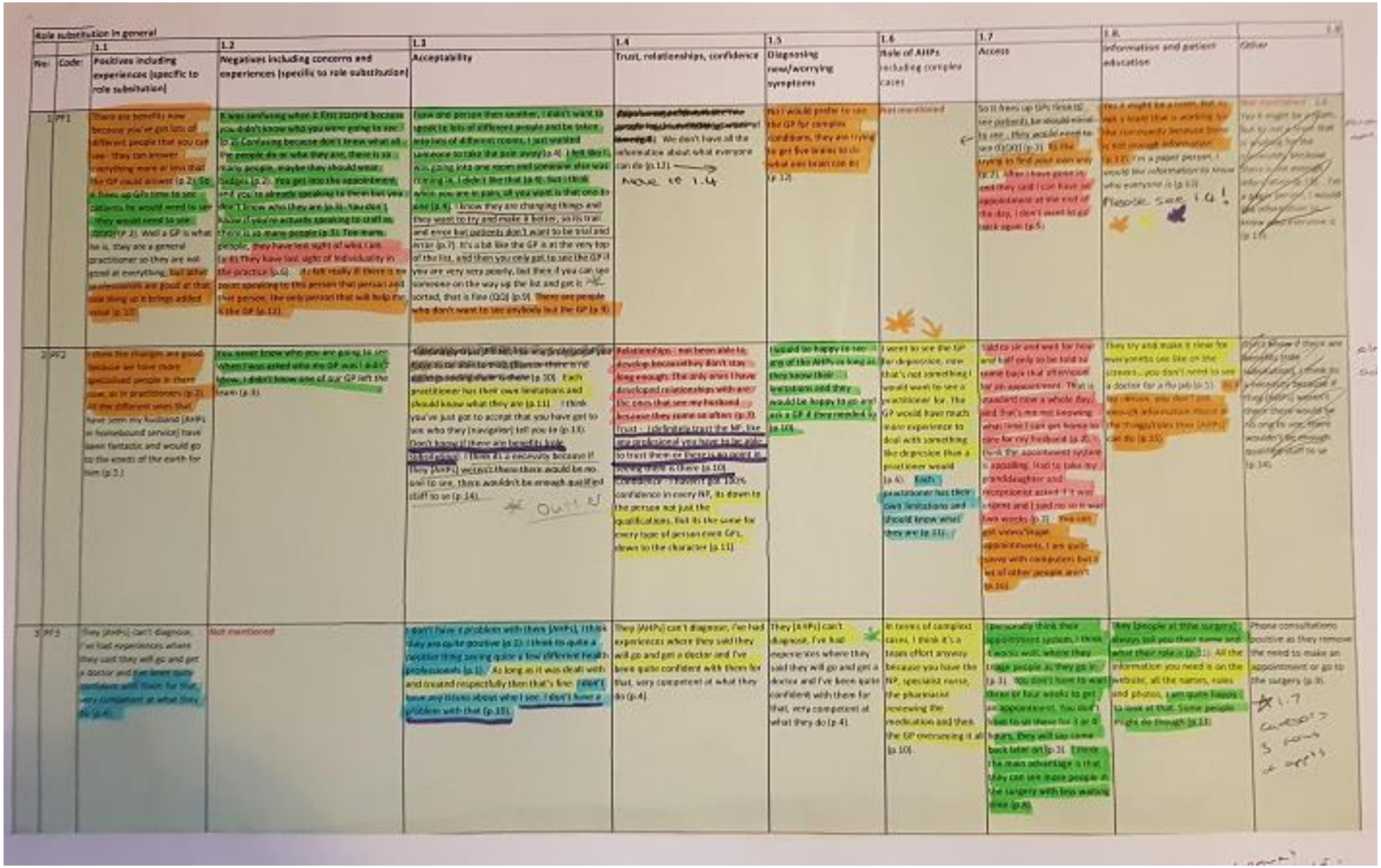
11.1. Other

11.2. Other

11.3. Other

11.4. Other

Appendix 26: Example of Framework matrix/chart



Appendix 27: Example of Framework interpretation exercise

General views of role substitution – Interpretation

1.1.Positives

Category 1 – specialised care and added value (orange highlighter)

- Lots of different healthcare professionals to see who bring added value.
- More specialise people in primary care
- Different AHPs bring their unique approaches.
- Think different AHPs are better suited for different purposes
- Some practitioners are better placed to deal with some things than GP 'other experts'.
- Getting everyone's expertise.
- Working with different staff you get different points of view and approaches
- Wider range of skill bases
- Different point of views

Category 2 – better than GPs (red highlighter)

- Some AHPs/advanced practitioners more up-to-date than GPs
- Some people can do some things better than GPs

Category 3 – improved services and care (pink highlighter)

- Opens up a new world of things at the practice – can even see someone from citizens advice
- Get to see the right person at the right time, which saves time.
- Patients get to see the most appropriate person
- Patients get a better service, they can access things they didn't used to, e.g. audiologists

Category 4 – improvements in healthcare professional role (yellow highlighter)

- Encouraged me to train and expand my role
- Given me more autonomy
- Taking on more roles gives change to develop and expand our roles
- AHPs are autonomous, knowledgeable, safe practitioners in their own right

Category 5 – reduces demand on GPs (green highlighter)

- Frees up GP time – think role substitution good to take load off the doctors
- Haven't got enough GPs to go round so good to have extra people

- Having AHPs takes pressure off GPs
- I think having nurses and AHPs allows GPs to concentrate on more complex patients

Category 6 – general feelings (blue highlighter)

- Think it works better with all the new people
- Very happy with changes.
- Think role substitution is good thing
- Feel positive about role substitution – it makes sense
- Role substitution is way forward
- Exciting times
- Role substitution is good
- Feel positive about role subsititon
- Confidence in AHPs

Outliers (Asterix on charts in pencil)

- Think role substitution is good thing, **even if it is forced by economics**
- AHPs are autonomous, knowledgeable, safe practitioners in their own right
- Patients are getting used to the new way of doing things, they have to get used to it

1.2.Negatives

Category 1 – confusing/too many different people (green highlighter) THIS CATEGORY MUST LINK WITH INFORMATION SECTION 1.8

- Confusing at beginning, didn't know who you were going to see. Don't know who they are and what they can do, maybe could wear badges.
- Too many people
- Never know who you are going to see
- Think different names and different roles are confusing for patients
- Patients are apprehensive because they don't know peoples roles

Category 2 – worsened services (red highlighter)

- Lost sight of who I am and individuality
- Very impersonal

Category 3 – negatives/risks to healthcare professional role (yellow highlighter)

- Risk that some staff will be exposed of things that they are not capable of dealing with

- Some AHPs won't pick up on things that a GP can, GP greater depth of knowledge and training

Category 4 – resistance to AHPs/only wanting the GP (orange highlighter)

- If I am really ill I don't want to see lots of people, the only person that can help is the GP

Category 5 – general views – negatives (blue highlighter)

- Nobody has a good thing to say about it
- Patients were stiff to begin with, but now getting used to it
- There's naturally going to be challenges

Outliers (pink highlighter)

- Lots of people now have become specialised but who is going to do the ordinary stuff
- Role substitution is just done to meet the demand
- Role substitution is a cure to meet demand but people need to buy into it for it to work

1.3 Acceptability

Category 1 – Positive about role substitution (link with 1.2 Category 5 general viewsor link that back to this section) (blue highlighter)

- I have seen how it works with all the new people and think it works better – great service
- Very happy with changes
- I feel positive about it
- I think overall role substitution is good

Category 2 – Negative about role substitution (red highlighter) (link with 1.2 Category 5 general viewsor link that back to this section

- Don't think its good, don't know anyone who does

Category 3 – Impartial/neither positive or negative (purple underlined) (link with 1.2 Category 5 general viewsor link that back to this section

- Just got to accept it and see who they tell you to see
- Don't know if there are any benefits
- I don't have a problem with AHPs
- Don't have any issues with who I see
- Don't particularly mind the changes

- Don't see much change in the surgery

Category 4 – suggestions for role substitution (yellow highlighter)

- Ok as long as each practitioner knows their limitations
- As long as it is dealt with and treated respectfully its fine
- It's got to be better system as long as don't over tax the staff and they get enough training and funding
- Fine as long as people get appropriate training
- People need to buy into it for it to work

Category 5- how staff feel about patients acceptance (yellow highlight with black stars)

- Patients bit apprehensive at first because they don't know scope of peoples roles
- Patients are getting used to new way of doing things, we just have to get used to it
- Some patients really on board with is, some really not happy
- Its about cultural change, patients accepting the benefits of multi-professional integrated approach

Category 6 – too many practitioners/don't know staff (green highlighter) link with 1.2 Category 1

- Seen one person then another, spoke to lots of diff people, just wanted someone to take the pain away. When in pain you just want that one-to-one
- Waste of time seeing too people for same thing.
- Don't mind it, but I don't know who anyone is
- Patients bit apprehensive at first because they don't know scope of peoples roles

Category 7 – just want GP (link with 1.2 category 4) orange highlighter

- Some people only want to see GP

Category 8 – worsened services (underline in black) link to 1.2.

- They are changing things, want to make it better, but patients don't want trial and error

Outliers (no highlight, Asterix in pencil)

- GPs at very top, only get to see them if you are very very ill. But can see someone up the list and get it sorted, its fine
- Just got to accept it and see who they tell you to see
- Think its necessary otherwise there would be no one qualified to see – DEMAND CATEGORY?

- Think it's the only way forward, too many patients – they can't all have chronic conditions
- People need to buy into it for it to work

1.4 Relationships and confidence

Category 1 – relationships between patients and staff (pink highlighter)

- Relationships not developed with AHPs, they don't stay long enough. Can only develop relationships with ones you see often
- Same with everyone, relationships need to start somewhere
- I don't have relationship with any of the staff, not familiar with any of them – ***this links with information/knowing their roles categories*
- People that go in often are on first term basis, I don't know them because I don't go often
- Building relationships is a skill that we don't discuss in NHS

Category 2 – relationships amongst staff (blue highlighter)

- Get on well with the rest of nurses and AHPs, we ask each other for advice - **link with teamwork

Category 3 – confidence (yellow highlighter)

- Confidence is all down to the person not their role, not just down to qualifications. Even for GPs its down to their character
- Experiences with AHPs getting GP to ask, very confident in them
- Confidence in AHPs is about what they can do, not their job title

Category 4 – complexity (green highlighter) link with 1.5 section

- AHPs sometimes better at dealing with complexity, complexity is not just about knowledge, it is about building good relationship. If the patient doesn't tell you you haven't got chance of dealing with the complexity

Category 5 – trust

- With any practitioner you have to trust them or there is no point

Outliers – grey pencil Asterix

- Good experience years ago with family GP pulled out all the stops with investigations, not sure if it would be the same today – *link with continuity/knowing family history theme*

Make sure included in nurses section (purple underlined)

- I definitely trust the NP

1.5 and 1.6 Roles including Diagnosing new/worrying symptoms and complexity

Category 1 – against seeing nurses or AHPs (orange highlighter)

- Prefer to see GP for complex conditions – 5 brains trying to do what one brain can do
- AHPs can't diagnose
- AHPs could miss something, could they spot underlying condition?
- I don't think AHPs can treat chronic conditions, they just refer you back to doctor
- Depression is not something I would want to see a practitioner for, GP would have much more experience

Category 2 – happy to see nurses or AHPs (green highlighter)

- Happy to see any AHP as long as they know their limitations and go and ask GP if needed
- Would be happy to see someone else instead of doctor for worrying symptoms
- If they have the skills or experience, it is fine for them to treat complex cases
- If I was patient with mental health I would prefer to see nurse of AHP than GP..more time and more approaches

Category 3 – further comments/reservations (yellow highlighter)

- Diagnosis is done through diagnostic tests not people anyway
- Treating complex cases is a team effort anyway, have NP, specialist nurse, pharmacist reviewing meds and GO overseeing it all
- You would think there would be at least 2 people looking at the worrying symptoms case anyway
- Good to have other practitioners see patients who don't need to see the doctor
- Different people suited for different purposes
- AHPs see less complex and GPs see more complex
- There are generalist people (GPs) and specialist people (AHPs)
- GPs have been doing roles that they don't need to do for a long time
- You don't need a GP who is very qualified and knowledgeable to do some types of work and sometimes AHPs can do it better

- I think AHPs treating complex conditions evolves naturally
- I think having nurses and AHPs allows GPs to concentrate on more complex patients

Category 4 – qualifications (pink highlighter)

- People have different qualifications and bring different things to the table
- Don't know if nurse or GP is more qualified to treat complex conditions
- Some nurses and AHPs are more up to date than GPs
- You don't need a GP who is very qualified and knowledgeable to do some types of work and sometimes AHPs can do it better

Category 5 – scope of practice and limitations within their roles (blue highlighter)

- Each practitioner has their own limitations and should know what they are
- We all have clearly defined roles
- Everyone knows their scope of practice and can draw from each other. Roles are flexible but everyone knows their limits
- We are all taking on extended roles and its happened quickly

1.7 Access – this may join with patient outcomes major theme

Category 1 – advantages specific to access and getting appointments (green highlighter)

- Their appointment system works well – they triage people as they go in
- You don't have to sit and wait for ¾ hours, good you can come back at end of the day
- Main advantage is they can see more people, less waiting times
- Think more professionals mean more people will get to be seen – you can get an appointment more easily
- Having more AHPs means patients are seen faster
- Role substitution improves waiting times

Category 2 – disadvantages specific to access/getting appointments (pink highlighter)

- Gone in to be told to come back at end of day, I don't want to come back again
- Told to sit and wait for an hour and half only to be told to come back at the end of the day – whole day to get it sorted is standard now. I need to get back for caring responsibilities. The appointment system is appalling

- I was sitting there for 4 hours they could see I wasn't well, I had to leave – I was devastated
- I couldn't get through to them – I had to call 999
- Feel fobbed off all the time waiting to see someone – think that's why people go to A&E

Category 3 – forms in which to get an appointment or types of appts i.e. online, telephone etc. (orange highlighter)

- Its like trying to find your own way
- Can get video appointments now – I'm quite good with computers but some people aren't
- Think its better seeing someone face-to face rather than over phone
- You can book yourself in on the screen at the surgery
- Younger patients like using email so they don't have to phone
- Patients like to email for an appointment instead of phoning
- Phone consultations are positive – don't need to go to surgery
- Email is good but probably not for mental health reasons

Category 4 – other (blue highlighter)

- People that go often seem to get to jump the queue
- Some people that don't feel quite right and feel something is really up might be put off by 2 week wait to see a GP
- If you use same day service it's a locum you see

1.8 Information and patient education – this must link (follow-on from) 1.4 in write-up

Category 1 – lack of information/not satisfied with information provided (orange highlighter)

- They are not a team that is working for the community because they don't give us enough information
- They don't give us enough information about all the things they can do
- We don't get enough information about what is happening
- They have a screen but if you don't go to surgery you won't see it

Category 2 – satisfied with level of information (green highlighter)

- The people in the surgery always tell you their name and role

- All the information that you need is on the website, names, pictures, roles - quite happy to look at website but some people might not
- Good info on digital screen and website with lots of info about what's available
- I'm one of the few that has enough information, spent a lot of time there observing what's going on
- We were given a letter at the beginning – it was very clear

Category 3 – Sources of information (yellow highlighter)

- They try and make it clear, give information on screens
- They have a screen but if you don't go to surgery you won't see it
- All the information that you need is on the website, names, pictures, role – quite happy to look at website but some people might not
- Good info on digital screen and website with lots of info about what's available
- We should start to use social media to provide information about the surgery
- When services changes, all patients were given a pack explaining what everything does
- Thinking of making a movie – short video clip explain everything
- We were given a letter at the beginning – it was very clear

Category 4 – Confusing titles and roles (purple underlining) *Must link with 1.2*

- I would like information to know who everyone is
- They don't give us enough information about all the things they can do
- Need more information about what everyone can do
- Should have info about their qualification and what they can do – I wasn't sure who I had seen
- Patients don't know what all the roles are and what they are capable of doing
- I don't feel patients need to know all the different names, all the titles e.g. nurse, NP, ANP are very confusing – roles need to be simplified not complicated
- I think nurses should be called something else, not nurses, patients would accept it more
- Its about making people aware about what all the different staff can do
- Roles are very confusing for patients, lots of different names – barrier to the word 'nurse', practice manager suggested I call myself ACP (advanced clinical practitioner)
- Nurses all wear same colour uniform, very confusing. Managers want some nurses and AHPs to wear own clothes to reduce barriers

- There are people with ever so slightly different titles
- They don't know who is who, who they have seen

Category 5 – Patient education and the way forward (blue highlighter)

- It's about a change of culture
- Even on the TV it says go and see your doctor and not a nurse or AHP!!
- Need more communication to the patients to educate them
- Better communication to patients is needed – they're getting lost in the changes – we don't show them how best to use surgery and NHS, disempowers them
- Its all about patient education
- Its about educating patients because times have changed
- We are still using term 'doctor's surgery'! it needs to change if we expect patients to understand it is a whole team – even on TV is says 'doctor's'
- Finding it difficult to explain to patients that GPs not the gatekeeper anymore
- Its about helping patients understand that getting someone who isn't a doctor is not good

Outliers/topics not actioned in write-up which will need revisiting in other charts

Include list – order of write up (by category)

Make order for each chart, then revise order with all charts together